

INTERNATIONAL PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

To:

Assistant Commissioner for Patents
United States Patent and Trademark
Office
Box PCT
Washington, D.C.20231
ETATS-UNIS D'AMERIQUE

in its capacity as elected Office

Date of mailing (day/month/year) 29 June 2000 (29.06.00)	
International application No. PCT/CA99/01000	Applicant's or agent's file reference 115.8
International filing date (day/month/year) 29 October 1999 (29.10.99)	Priority date (day/month/year) 29 October 1998 (29.10.98)
Applicant GULLICKSON, Zan et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:
26 May 2000 (26.05.00)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was

☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

<p>The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No.: (41-22) 740.14.35</p>	<p>Authorized officer</p> <p>Manu Berrod</p> <p>Telephone No.: (41-22) 338.83.38</p>
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PATENT COOPERATION TREATY

REC'D 22 DEC 2000

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70) 14

Applicant's or agent's file reference 115.8	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/CA99/01000	International filing date (day/month/year) 29/10/1999	Priority date (day/month/year) 29/10/1998
International Patent Classification (IPC) or national classification and IPC F16D9/06		
Applicant 648560 ALBERTA LTD. et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 7 sheets, including this cover sheet.

- ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand 26/05/2000	Date of completion of this report 20.12.2000
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Foulger, M Telephone No. +49 89 2399 2960 

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/CA99/01000

I. Basis of the report

1. This report has been drawn on the basis of *(substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments (Rules 70.16 and 70.17).):*

Description, pages:

1-8 as originally filed

Claims, No.:

1-13 as originally filed

Drawings, sheets:

1/4-4/4 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/CA99/01000

☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	3,8,9,12
	No:	Claims	1,2,4-7,9-11,13
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-13
Industrial applicability (IA)	Yes:	Claims	1-13
	No:	Claims	

2. Citations and explanations
see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:
see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:
see separate sheet

Reference is made to the following documents:

- D1: US-A-1 574 466 (E.E.BROWN) 23 February 1926 (1926-02-23)
D2: US-A-5 596 845 (STRIZKI RICHARD) 28 January 1997 (1997-01-28)

Re Item V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. The present application does not meet the requirements of Article 33(1) PCT, because the subject-matter of claims 1, 6 and 10 is not new in the sense of Article 33(2) PCT.

1.1 Claim 1

Document D1 discloses,

A shearable connector for joining two coupling members and transferring a desired torque therebetween, said shearable connector comprising an elongate bolt element having:

- a middle portion **(15c)** forming a shearable sector of a given shear strength;
- a shoulder element **(15d)** on either side of said middle portion for abutting a respective coupling member to provide a pre-set clearance between at least a portion of said coupling members when joined (**s fig. 1**); and
- an end portion **(15a)** extending from each of said shoulder elements and having a threaded part for receiving a nut member **(15b)** thereon for clamping said bolt element to said coupling members (**see fig. 1**).

Therefore all features of claim 1 are known from D1.

Furthermore all features of claim 1 are also known from D2.

1.2 Claim 6

Document D1 discloses,

- A shear bolt for joining coupling members comprising:
an elongate core element having a first portion **(15c)** forming a shear

area of a given shear strength,
a second portion on each side of said first portion **(15d)** forming a shoulder of larger diameter than said first portion and adapted to provide a pre-set spacing between opposed coupling members at least in the vicinity of said shear bolt **(see fig. 1)**, and
a third portion **(15a)** adapted to receive a fastening member to secure said core element with said coupling members.

Therefore all features of claim 6 are known from D1.

Furthermore all features of claim 6 are also known from D2.

1.3 Claim 10

Document D1 discloses,

A shear bolt coupling assembly comprising:

a first coupling member **(10)** with a first radially extending flange **(10a)**
a second coupling member **(11)** located coaxially with said first coupling member and having a second radially extending flange **(11a)**; and an elongate shear bolt having a first portion **(15c)** forming a shear area of a given shear strength,
a second portion on each side of said first portion **(15d)** forming a shoulder of larger diameter than said first portion for abutting each of said first and second flanges to provide a desired clearance therebetween **(see fig. 1)**, and
a third portion **(15a)** extending from each of said shoulders adapted to receive a fastening member to secure said shear bolt with said first and second flanges, thereby securely connecting said first and second coupling members for transferring a shear force therebetween up to said given shear strength **(see fig. 1)**.

Therefore all features of claim 10 are known from D1.

Furthermore all features of claim 10 are also known from D2.

2. Dependent claims 2-5,7-9,11-13 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT with respect to novelty or inventive step, the reasons

being as follows:

Claims 2,7,11 - the features of these claims are known from D1 and D2.

Claims 4,9,13 - the feature of these claims are disclosed in D2.

Claims 5 - the feature of claim 5 is also known from D1 and D2.

Claims 3,8,12 - the features of these claims are merely selections amongst various possibilities from which the skilled person would choose, in accordance with circumstances, without the exercise of inventive skill.

Re Item VII

Certain defects in the international application

- a. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in the documents D1 and D2 is not mentioned in the description, nor are these documents identified therein.
- b. Independent claims 1,6 and 10 are not in the two-part form in accordance with Rule 6.3(b) PCT, which in the present case would be appropriate, with those features known in combination from the prior art (document D1/D2) being placed in the preamble (Rule 6.3(b)(i) PCT) and with the remaining features being included in the characterising part (Rule 6.3(b)(ii) PCT).
- c. The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).

Re Item VIII

Certain observations on the international application

- d. Although claims 1 and 6 have been drafted as separate independent claims, they appear to relate effectively to the same subject-matter and to differ from each other only with regard to the definition of the subject-matter for which protection is sought and in respect of the terminology used for the features of that subject-matter. The aforementioned claims therefore lack conciseness. Moreover, lack of clarity of the claims as a whole arises, since the plurality of independent claims makes it difficult to determine the matter for which protection is sought, and places an undue burden on others seeking to establish the extent of the protection.

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/CA99/01000

Hence, claims 1 and 6 do not meet the requirements of Article 6 PCT.

- e. The statement in the description on page 8, referring to the "spirit of the invention" implies that the subject-matter for which protection is sought may be different to that defined by the claims, thereby resulting in lack of clarity (Article 6 PCT) when used to interpret them (see also the PCT Guidelines, III-4.3a).

INTERNATIONAL SEARCH REPORT

International Application No

PCT/CA 99/01000

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 F16D9/06 E01F9/018

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F16D E01F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 1 574 466 A (E.E.BROWN) 23 February 1926 (1926-02-23) page 1, line 59 -page 2, line 26; figures 1-3	1,2,6,7, 10,11
X	US 5 596 845 A (STRIZKI RICHARD) 28 January 1997 (1997-01-28) column 9, line 45 -column 11, line 2; figures 1-9	1,2,4,6, 7,10,11
A	US 3 430 461 A (BOYLAN CAROL CLARK) 4 March 1969 (1969-03-04) the whole document	2,3,7,8, 11,12
A	US 3 343 322 A (A. LURKIS ET AL) 26 September 1967 (1967-09-26) column 2, line 21 - line 25; figures 2,3	3,8,12

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

27 January 2000

Date of mailing of the international search report

04/02/2000

Name and mailing address of the ISA

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Fax: (+31-70) 340-3016

Authorized officer

Van Overbeeke, J

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/CA 99/01000

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 1574466	A	23-02-1926	NONE	
US 5596845	A	28-01-1997	NONE	
US 3430461	A	04-03-1969	NONE	
US 3343322	A	26-09-1967	NONE	

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
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AZ	Azerbaijan	GB	United Kingdom	MC	Monaco	TD	Chad
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BE	Belgium	GN	Guinea	MK	The former Yugoslav Republic of Macedonia	TM	Turkmenistan
BF	Burkina Faso	GR	Greece	ML	Mali	TR	Turkey
BG	Bulgaria	HU	Hungary	MN	Mongolia	TT	Trinidad and Tobago
BJ	Benin	IE	Ireland	MR	Mauritania	UA	Ukraine
BR	Brazil	IL	Israel	MW	Malawi	UG	Uganda
BY	Belarus	IS	Iceland	MX	Mexico	US	United States of America
CA	Canada	IT	Italy	NE	Niger	UZ	Uzbekistan
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CM	Cameroon	KR	Republic of Korea	PT	Portugal		
CN	China	KZ	Kazakistan	RO	Romania		
CU	Cuba	LC	Saint Lucia	RU	Russian Federation		
CZ	Czech Republic	LI	Liechtenstein	SD	Sudan		
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DK	Denmark	LR	Liberia	SG	Singapore		
EE	Estonia						

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INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 115.8	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/CA 99/01000	International filing date (day/month/year) 29/10/1999	(Earliest) Priority Date (day/month/year) 29/10/1998
Applicant 648560 ALBERTA LTD. et al.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

1
☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CA 99/01000

Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

The abstract is modified as follows:

line 1: after "bolt" insert "(50)";
line 2: after "flanges" insert "(42,44)";
line 9: after "point" insert "(60)" and after "shoulders" insert "52";
line 11: after "openings" insert "(46,48)";
line 12: after "area" insert "(54)".

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/CA 99/01000

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 F16D9/06 E01F9/018

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 F16D E01F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 1 574 466 A (E.E.BROWN) 23 February 1926 (1926-02-23) page 1, line 59 -page 2, line 26; figures 1-3 ----	1,2,6,7, 10,11
X	US 5 596 845 A (STRIZKI RICHARD) 28 January 1997 (1997-01-28) column 9, line 45 -column 11, line 2; figures 1-9 ----	1,2,4,6, 7,10,11
A	US 3 430 461 A (BOYLAN CAROL CLARK) 4 March 1969 (1969-03-04) the whole document ----	2,3,7,8, 11,12
A	US 3 343 322 A (A. LURKIS ET AL) 26 September 1967 (1967-09-26) column 2, line 21 - line 25; figures 2,3 -----	3,8,12

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"O" document referring to an oral disclosure, use, exhibition or other means

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

27 January 2000

Date of mailing of the international search report

04/02/2000

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Authorized officer

Van Overbeeke, J

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/CA 99/01000

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 1574466	A	23-02-1926	NONE	
US 5596845	A	28-01-1997	NONE	
US 3430461	A	04-03-1969	NONE	
US 3343322	A	26-09-1967	NONE	